CIRM Shared Research Laboratory Information Form – Part Two

Section A. Project Information

Project Title	CPMC Shared Research Laboratory

Limited to 300 Characters

Project Start Date	Sep 1, 2007	Construction Start Date	Sep 15, 2007	Occupancy Date	Jan 15, 2008

Total Part Two Funds Requested for Shared Laboratory Space	$1,709,820
Total Part Two Funds Requested for Stem Cell Techniques Course	
Total Capital Funds Requested	$ 656,250

Note: All green fields are calculated values. Do not enter a value in the field.

Please indicate whether you propose to apply for funding of a Stem Cell Techniques Course along with the Shared Laboratory Space, or just the Shared Laboratory Space.

(●) Shared Research Laboratory only ( ) Shared Research Laboratory and Stem Cell Techniques Course

NOTE: Please be aware that any information you provide in this form will be made publically available.

Section A. 1. Program Director

Name	Prefix: Dr.	First: Dieter	Middle: C.	Last: Gruenert	Suffix:

Email (office)	dieter@cpmcri.org	This email address identifies you to CIRM. Please use this email address for all correspondence with CIRM.
Application Number	CL1-00512-1	This field should fill automatically, based on the email address. If not, enter the number you received via email from CIRM, in the form "XX9-99999-9", where "X" is a letter, and "9" is a digit.

Section A. 2. Facilities Contact

Name	Prefix: Ms.	First: Lynne	Middle:	Last: Day	Suffix:

Institution	Other	If your institution is not listed, please identify the name of the institution here.
Other Institution		
Position Title	Director of Research Operations	
Department		
Address	475 Brannan Street, Suite 220	

City	San Francisco			CA	Zip Code 94107
Phone Number	(415) 600-3014	Ext		Fax Number	(415) 600-1681
Email (office)	dayL@cpmcri.org	This email address identifies you to CIRM. Please use this email address for all correspondence with CIRM.			

(Revised 03/07/2007)

Section A. 3. Public Abstract

See Appendix A.

Section A. 4. Statement of Benefit to California

See Appendix A.

Section B. Laboratory Renovation Plan

Project Manager	Jeanne Gomez	Construction Supervisor	Craig Horton
Title		Title	Senior Project Manager
Company/Institution	CPMC	Company/Institution	Pankow

Describe plans for development/renovation of the shared laboratory space including fixed equipment costs. Include a description of the current space and how it will be renovated and reconfigured to form the laboratory. Include as attachments one 11x17 page of the current floor plan space and one 11x17 page of proposed floor plan of the renovated space. Describe all renovations that will be done. Describe how the project will be managed and tracked, as well as how change orders will be handled. For laboratories that are proposed to be located in leased space, provide information regarding the institution's long-term access to the leased space. Describe plans and schedule for all phases of development including design, construction, and installation of equipment leading to a functional laboratory. Give a proposed contingency plan in case of cost overruns. Any additional costs due to budget overruns will be the responsibility of the grant recipient. (narrative limited to 3 pages)

Part 2: Laboratory Rennovation Plan

As of March 1, 2007 CPMCRI has leased an additional 19,000 sq ft of space to expand laboratory, office and conference room capabilities to our existing 42,000sq ft. We have renegotiated a new lease on all our space at 475 Brannan for a 10 year period (beginning March 2007 through February 2017). Although the majority of the expansion space is designated for other uses, we have set aside approximately 1500 sq ft in support of the shared laboratory being proposed in this CIRM application.

Since January 2007 CPMCRI has been in the planning stage of a major renovation to our existing space and the new 19,000 sq ft of expansion space. Therefore, we are including the planning, permitting and construction schedule for the proposed shared laboratory into the overall master renovation schedule for our facility which is currently underway.

CPMCRI facility description. CPMCRI occupies 4 zones/areas in the 475 Brannan building. Zone 4 below is the planned location for the shared laboratory:
Zone 1 located on the lst floor contains bench laboratory space (includes tissue culture rooms, microscope rooms, wet lab benches, large equipment rooms, walk-in cold room.
Zone 2 located adjacent to Zone 1 on lst floor contains office, cubicles, tissue culture room and 5,000 sq ft vivarium
Zone 3 located on 2nd floor contains the administrative & finance research offices, PI offices, cubicles and conference facilities.
Zone 4 located on 2nd floor adjacent to Zone 3 – new expansion space, location of the shared laboratory.

Shared laboratory space renovation: The renovation of Zone 4 is the first phase of our master renovation plan. The space is currently vacant and therefore construction in this zone will be minimally disruptive. As can be seen from the schematic of Zone 4, the proposed location of the shared laboratory is currently a large, open space that will not require demolition. The only existing structure in the area is a single laboratory bench that will be incorporated into the enclosed shared laboratory.

Project management:
Our master renovation, of which the shared laboratory will become a part, is being managed by the following team:
Architects: Smith Group, Inc.
Mona Thaler AIA Associate
Construction: Pankow
Craig Horton, Senior Project Manager
CPMC Project Manager: Jeanne Gomez
CPMCRI Site Administrator: Lynne Day
CPMCRI Site Facilities: Martin Wu

The project will be managed and tracked by Jeanne Gomez from the California Pacific Medical Center Facilities Department. Ms. Gomez managed the initial build out of the 475 Brannan space in 2004/2005. She, as are the other members of the team, is very familiar with the facility and we have chosen to work with the same architects and construction team as we were very satisfied with their original work.

Since the beginning of February 2007 the project team listed above has met weekly. Project status is tracked and managed by

Section B -- 1. Laboratory Renovation Plan (continued)

Ms. Gomez and each team member reports progress on a weekly basis. As required, representative from subcontractors also attend the weekly meetings. We hold user group meetings periodically to assist in evaluating lay-outs. Construction is supervised by Mr. Craig Horton who reports to Ms. Gomez. Installation of equipment for the shared laboratory will be coordinated by Ms. Gomez in conjunction with Martin Wu, our facilities manager and any required subcontractor and equipment vendors. We will submit our design for the shared laboratory along with the master renovation plans through the city permit process utilizing the services of a permit expeditor. If this proposal is awarded in the summer of 2007 we will, by that time, have permits in process if not already issued. Change orders will be prepared and priced by the project contractor and submitted to CPMCRI and the project manager for review and acceptance. Once a change order is accepted the contract will be amended to reflect the change.

Master Renovation (Zone 4) Project Schedule:
February – March 5th 2007 Design phase/user group meetings
March 12, 2007 Design completed to submit for initial pricing
March 19, 2007 Pricing proposal submitted for review
March 26, 2007 Initial budget presentation/constructability (execute construction agreements)
April 9, 2007 Revised plans reviewed per budget constraints
April 16, 2007 Permit document process begun
May 7, 2007 Design plan submitted to building owner for Review
(may need additional time for building owner review comments)
June 4, 2007 Final pricing for master renovation
(pending comments and potential funding from CIRM design and pricing changes may be required to shared laboratory)

July 2007 Begin demolition/construction
(pending permit approvals from city)

December 2007/January 31, 2008 Construction complete in Zone 4
Functional space/move staff and install and test all equipment

Cost overruns: We are factoring 10% into our plans for cost overruns, which is routine for all our medical center building projects. We understand that cost overruns are the financial responsibility of the grantee institution.

Section B. 1. Schedule/Timeline and Drawdown of Funds Table

Provide a realistic schedule and drawdown of funds for completing each activity/milestone, as indicated below.

#	Activity/Milestone	Start Date	Completion or Milestone Date	Amount of CIRM funds to be drawn
1	Grant Award (estimate)		Sep 1, 2007	
2	Request for Planning Funds (10% of Construction Costs)			$ 48,300
3	Prepare Preliminary Plans	Mar 12, 2007	Apr 9, 2007	
4	Approval of PPs		Apr 9, 2007	
5	Prepare Working Drawings	Apr 9, 2007	Apr 9, 2007	
6	Approval of WDs		May 7, 2007	
7	Request Construction Contract funds (80% of Construction Costs)		Sep 17, 2007	$386,400
8	Advertise for Construction Contract			
9	Award Construction Contract			
10	Construction Activities	Jul 1, 2007	Jan 18, 2008	
11	Completion of Equipment Purchases		Nov 15, 2007	
12	Request Equipment Purchase funds		Sep 1, 2007	$842,856
13	Beneficial Occupancy			
14	Notice of Completion			
15	Request Construction Completion Amount (10% of Construction Funding)		Jan 18, 2008	$ 48,300

"Preliminary Plans" (PPs) represent approximately 35 percent of the design effort, or may be considered the product of completing the "Design Development" (DDs) phase of architectural work.

"Working Drawings" (WDs) represent drawings and specifications from which a contractor may determine the full extent of work contemplated in the project for purposes of submitting a bid; may be referred to as completion of "Construction Documents" (CDs) phase of architectural work.

Section B. 2. Budget

Provide a complete budget for the renovation that includes construction costs, design fees, administration of the project, other costs (i.e. installation of equipment) and a construction contingency (limited to 7-10% of the construction budget). Identify the amount of CIRM funds requested and the matching funds (construction requires 20% matching funds). Provide a complete budget for movable equipment (equipment requires 20% matching funds). (narrative limited to 3 pages)

(Note: An Excel spreadsheet can be attached as long as the total submission for this Section is limited to 3 pages)

Renovation/Building

@$400/sq ft construction (includes architect/ engineering fee 15% of construction cost)	1500	603,750
10% construction contingency	1	52,500
total renovation		656,250

The renovation estimated price per square foot includes all construction costs (benches, casework, fixtures, cabling, HVAC, permits, connection to emergency generator support, plumbing, etc.)

Equipment Purchases

Description	Quantity	Cost
Beckman Optima ultracentrifuge	1	66,682
Beckman Centrifuge	1	37,130
Beckman titanium rotor	1	17,645
Beckman bucket rotor	1	19,323
Beckman fixed angle rotor	1	8,444
Beckman fixed angle rotor	1	4,731
Coulter counter with accessories	1	16,238
Biorad Gel Documentation system	1	27,057
Leica Leitz fluorescence microscope	1	8,660
Forma CO2 incubators	2	6,495
Forma Series II incubator with O2 control	1	7,280
Nikon Inverted Phase contrast microscope	1	4,330
Baker Biosafety cabinets (6 foot)	3	32,089
Forma -80 ultralow freezer	1	10,000
Liquid nitrogen dewers for cell storage	2	10,332
freezers (-20)	2	2,165
Tecan Celerity fully automated cell culture system	1	774,972

		CIRM	CPMC
Equipment total	1,053,570	$842,856	$210,714

The mission of the core facility will be to isolate EP cell lines by direct differentiation of cell lines from human embryos and from hES cell lines.

We plan to purchase the equipment typically needed for a cell biology/molecular biology core which will include 3 class II biosafety cabinets, CO2 incubators, a coulter cell counter with accessories, a fluorescence microscope, an inverted microscope, a liquid nitrogen cryogenic storage tank, and a low temperature -80°C freezer, a Beckman J-26 high performance centrifuge, and Beckman Optima L-80 XP ultracentrifuge with rotors, a Biorad documentation system capable of detecting chemiluminescence, along with miscellaneous refrigerators, - 20°C freezers, and water baths and necessary laboratory supplies for cell culture and molecular biology.

An ultracentrifuge is required for bulk preparation of cytoplast and karyoplasts (Do and Scholer, Stem Cells 2004 22:941-949), and for concentration of lentivirus vectors (Burns et al, Proc. Natl. Acad. Sci. 1993 90:8033-8037) used in Dr West's and Dr.

Section B. 2. Budget (continued)

Sargent's research programs.

A Tecan Cellerity robotic platform will be purchased to support plating, differentiation, and expansion of EP cell lines. Our approach will be to seed 96-well tissue culture plates at an average cell density of 1 cell/well. Of the EP cell lines isolated using the ACTCellerate ex vivo differentiation protocol, only about 25% of the clonally isolated lines survive with long-term growth potential. Since our initial plating efficiency is 1% to 10%, isolation of 1000 clonally isolated EP cell lines will require plating and differentiation of approximately 40,000 to 400,000 wells

The Tecan Cellerity robotic platform includes a cell sorter capable of seeding multi-well tissue culture plates, an 8-channel liquid handling arm, integrated incubator, hood-clean bench, and accessories for changing media and passaging cells. The Cellerity platform will be an essential resource for the maintenance and expansion of EP cell lines and will also be used to develop procedures for automated growth of hES cell lines.

Section B. 3. Budget Summary Table

Complete the budget summary for the use of CIRM funds.
Note: All colored fields contain calculated data. Please do not enter anything in those fields.

Other Project Costs				
Budget Category		**Total Budget**	**CIRM Grant Funds**	**Institutional Match**
Construction Contract Costs		$ 525,000	$ 420,000	$ 105,000
Other Construction Costs (institutional)		$ 000	$ 000	$ 000
Subtotal Construction		$ 525,000	$ 420,000	$ 105,000
Design Fees		$ 78,750	$ 63,000	$ 15,750
Administrative Costs				
Construction Contingency		$ 52,500		$ 52,500
Total Construction		$ 656,250	$ 483,000	$ 173,250
Movable Equipment		$1,053,570	$ 842,856	$ 210,714
Total Budget		$1,709,820	$1,325,856	$ 383,964
Gross Square Feet		$ 0.00	$ 0.00	Const Costs/GSF
Assignable Square Feet	1500	$ 437.50	$ 322.00	Const Costs/ASF

Section B. 4. Institutional Commitment

Provide a detailed description of the amount and source of matching funding for each request that requires matching funds. The requirement of matching funds can be satisfied if the institution can document funds, excluding other grant funds, committed to similar projects (i.e., renovation of lab space and equipment purchase) after January 1, 2005. Detail the use of the space after the three year period is completed. (narrative limited to 2 pages)

The California Pacific Medical Center and its Research Institute (CPMCRI) has made a major commitment of space and funding to enhancing its research programs. CPMC now ranks in the top 25 of all independent medical centers in the US in NIH funding. In addition to building programs in clinical research, epidemiology, behavioral medicine, and pharmacokinetics, CPMCRI has greatly strengthened its laboratory-based research programs.

In the past five years CPMCRI has successfully recruited—and provided space and institutional funding for—13 principal investigators in its four major lab programs: Immunology and Infectious Diseases (Drs. Stewart Cooper [hepatitis C immunology] and Raphael Merriman [genetics of fatty liver disease]); Cell Biology (Drs. Vishu Lingappa [bioconformatics], Dieter Gruenert [genetic engineering]; Giuseppe Inesi [calcium transport], and Saleh Adi [myoblast differentiation]); Cancer (Drs. John Muschler [dystroglycan in breast cancer], Sean McAllister [cannabinoid receptors], Claudia Gravekamp [cancer vaccines], and Charles Cobbs [CMV in glioma]); and Neurosciences (Drs. Eric Beattie [AMPA receptor trafficking], Jian Liu [ALS pathogenesis], and Claude Genain [MS immunology]). Many of these scientists, along with others who were already at CPMCRI, are or will be involved in embryonic stem cell research, as discussed elsewhere in this proposal. Two years ago, CPMCRI developed a new lab facility at 475 Brannan Street (in the China Basin area of San Francisco), and will shortly be developing an additional 19,000 sf at that facility to provide space to recruit additional scientists.

The researchers at CPMCRI are committed to developing a robust stem cell research program at CPMCRI and the Shared Research Laboratory (SRL) will be an integral part of this effort. The future use of the SRL will continue to involve the generation and characterization of embryonic progenitors (EPs) from both hES cells and directly from zygotes. In addition, any research involving the generation of new stem cell lines will be supported. The EP and hES cell lines will be from normal individuals and those with genetic disorders and will be distributed to researchers at CPMCRI and in neighboring institutions. Using the characterization and distribution mechanisms established during the period of CIRM funding, the cells will be characterized, catalogued, cryopreserved, and distributed. The characterization of the EPs and hES cell lines will have the goal of identifying those cells and conditions that will have direct therapeutic applications.

Matching funds: California Pacific Medical Center will provide matching funds for the equipment and renovation match from its yearly capital budget funds. In 2004 and 2005 the Institution provided approximately $7,000,000 for renovation and equipment purchase for the Research Institute laboratory, vivarium, and administrative space at 475 Brannan. The matching funds for this project are considerably less than the prior capital allocations we have obtained from the medical center.

Section C. Stem Cell Techniques Course (if applicable)

Based on the information provided in Part One of the application describing the course, include a justification of the additional space required and additional equipment requested, if any. Include additional square footage and provide as an attachment one 11x17 page of the proposed floor plan of the renovated space. (narrative limited to 1 page)

Limit narrative to visible field area.

Section C. 1. Schedule and Drawdown of Funds Table (if applicable)

Provide a realistic schedule and drawdown of funds for completing each activity/milestone, as indicated below.

#	Activity/Milestone	Start Date	Completion or Milestone Date	Amount of CIRM funds to be drawn
1	Grant Award (estimate)			
2	Request for Planning Funds (10% of Construction Costs)			$ 000
3	Prepare Preliminary Plans			
4	Approval of PPs			
5	Prepare Working Drawings			
6	Approval of WDs			
7	Request Construction Contract funds (80% of Construction Costs)			$ 000
8	Advertise for Construction Contract			
9	Award Construction Contract			
10	Construction Activities			
11	Completion of Additional Equipment Purchases			
12	Request Additional Equipment Purchase funds			
13	Beneficial Occupancy			
14	Notice of Completion			
15	Request Construction Completion Amount (10% of Construction Funding)			$ 000

"Preliminary Plans" (PPs) represent approximately 35 percent of the design effort, or may be considered the product of completing the "Design Development" (DDs) phase of architectural work.

"Working Drawings" (WDs) represent drawings and specifications from whicha contractor may determine the full extent of work contemplated in the project for purposes of submitting a bid; may be referred to as completion of "Construction Documents" (CDs) phase of architectural work.

"Additional Equipment" represents equipment to be used for the Stem Cell Techniques Course.

Section C. 2. Budget (if applicable)

Provide a complete budget for the additional renovation that includes construction costs, design fees, administration of the project, other costs (i.e. installation of equipment) and a construction contingency (limited to 7-10% of the construction budget). Identify the amount of CIRM funds requested and the matching funds (construction requires 20% matching funds). Provide a complete budget for additional movable equipment (equipment requires 20% matching funds). (narrative limited to 3 pages)

(Note: An Excel spreadsheet can be attached as long as the total submission for this Section is limited to 3 pages)

Section C. 3. Budget Summary Table (if applicable)

Complete the budget summary for the use of CIRM funds.
Note: All colored fields contain calculated data. Please do not enter anything in those fields.

Other Project Costs				
Budget Category		**Total Budget**	**CIRM Grant Funds**	**Institutional Match**
Construction Contract Costs				
Other Construction Costs (institutional)				
Subtotal Construction				
Design Fees				
Administrative Costs				
Construction Contingency				
Total Construction				
Additional Movable Equipment				
Total Budget				
Gross Square Feet		$ 0.00	$ 0.00	Const Costs/GSF
Assignable Square Feet		$ 0.00	$ 0.00	Const Costs/ASF

CIRM Shared Research Laboratory Information Form – Part Two

Section D. Signature Page

Complete, save, and print Part Two of the Shared Research Laboratory Grant Information.

Submit electronic application as an email attachment to laboratory@cirm.ca.gov no later than 5:00pm PST on March 16, 2007.

Mail* the original executed Part Two application and five (5) copies to:

Shared Research Laboratory Grant Application
California Institute for Regenerative Medicine
210 King Street
San Francisco, CA 94107

***Mailing must be postmarked no later than March 16, 2007.**
Applications will not be accepted after these deadlines.

Project Start Date	Sep 1, 2007	Construction Start Date	Sep 15, 2007	Occupancy Date	Jan 15, 2008

Total Part Two Funds Requested for Shared Laboratory Space	$1,709,820
Total Part Two Funds Requested for Stem Cell Techniques Course	
Total Capital Funds Requested	$ 656,250

Facilities Contact

Ms. Lynne Day
Director of Research Operations
Other
475 Brannan Street, Suite 220
San Francisco, CA 94107
(415) 600-3014
dayL@cpmcri.org

Authorized Organizational Official	Date
Print Name	Title
Program Director	Date
Print Name	Title

(Revised 03/07/2007)

CIRM Shared Research Laboratory Information Form – Part Two Supplement

Project Information

Application Number: CL1-00512-1

Program Director Name:

Historical Performance

Provide information on past performance for 3 projects.

	Project 1	Project 2	Project 3
Brief Project Title	Install Clinical Lab Equip	GI Lab Replace Scope Wash	Bayview Child Center
Original Budget (Total project cost)	$ 413,613	$ 322,000	$ 300,000
Final project cost	$ 410,000	$ 282,675	$ 320,000
Scheduled Completion Date	Nov 6, 2006	Dec 29, 2005	Feb 5, 2007
Actual Notice of Completion Date	Nov 15, 2006	Dec 16, 2005	Feb 12, 2007
Gross Square Feet involved	3,000	100	6,000
Assignable Square Feet involved	3,000	100	5,000
Approximate number of change orders	1	0	2
Value of all change orders & claims	$ 000	$ 000	$ 20,000
Type of construction management	Design-Bid-Build	Design-Bid-Build	Design-Bid-Build

Laboratory Alteration Projects

Please enter the number of laboratory alteration projects completed by the applicant in the past 2 years (in the range of $1-5 million in project cost), and the approximate total dollar value that these projects represent.

Total Laboratory Alteration Projects: 1

Approximate Total Value: $7,100,000

Limit Budget Justification to visible field area.

TECAN.

Quotation

Document Number	20030528-02 / 03/16/2007
Customer Number	124385
Created By	Permethius Austin
Telephone	+1 (800) 832-2687
Tecan Rep.	John Ham
Telephone	

Valid to	03/30/2007	**Currency**	USD
Payment Terms	Pay immediately w/o deduction		
Incoterms	Ex Works Tecan		

Quotation details

Item	Material (Old number) Description	Quantity	Price	Amount
0010	***Freedom Cellerity***			
0020	30020393 INSTRUMENT CELLERITY	1 PC	388,310.00	388,310.00
	Discount 10.00 %			38,831.00- 349,479.00
	Freedom EVO 200 including EVOware Plus, CellGEM and all LH, HW adaptations for Cellerity			
0030	30012904 (760037) THERMOSTAT LAUDA ECOLINE 203 US	1 PC	2,434.20	2,434.20
	Discount 10.00 %			243.42- 2,190.78
	LAUDA ECOLINE 203 Recirculator, US Version, 110V			
0040	30014265 INCUBATOR LICONIC STOREX 500 IC SA	1 PC	124,662.10	124,662.10
	Discount 10.00 %			12,466.21- 112,195.89
	StoreX STX500 IC SA, stand alone incubator			
0050	30014273 OPTION BI LEVEL STOREX 500	1 PC	3,436.50	3,436.50

Mail Correspondence To: Tecan US, Inc., P.O. Box 13953, Research Triangle Park, NC 27709
Telephone: 800-352-5128 Fax: 919-361-5201
ORDERING INFO: Faxed, mailed, or e-mailed copy of the PO is required for order processing. Visa, Mastercard and American Express are accepted for orders valued below $5,000 USD only.
Fax: 919-361-3601 E-Mail: order.entry@tecan.com

TECAN.

Quotation 20030528-02/02/16/2007 continued

Quotation details

Item	Material (Old number) Description	Quantity	Price	Amount
	Discount 10.00 %			343.65- 3,092.85
	Option, Bi-Level, 2 Carousel Platforms, StoreX STX500			
0060	30019276 OPTION TRANSFER STATION 400MM STOREX	1 PC	11,913.80	11,913.80
	Discount 10.00 %			1,191.38- 10,722.42
	Transferstation Liconic Storex, extended 400mm, used in Cellerity			
0070	30014452 BCR STOREX STX 500 602 1000	1 PC	6,829.90	6,829.90
	Discount 10.00 %			682.99- 6,146.91
	Option, Barcode Reader, STX500, STX602, STX1000, LPX440			
0080	30013567 SENSOR PLATE PRESENCE STOREX	1 PC	2,322.90	2,322.90
	Discount 10.00 %			232.29- 2,090.61
	Option, Plate Sensor, StoreX STX 40/100/220/500/602, STR44/240, LPX44/440, and LPR240			
0090	30014060 CAS.STANDARD MP STOREX 22 LEVEL STEEL	10 PC	630.40	6,304.00
	Discount 10.00 %			630.40- 5,673.60
	Stack, Stainless Steel, StoreX STX40/100/220, STX500/1000 Bi-Level, LPX44/440, 22 position / 23mm pitch			
0100	30014312 CAS.STANDARD MP STOREX 28 LEVEL STEEL	10 PC	851.00	8,510.00
	Discount 10.00 %			851.00- 7,659.00
	Stack, Stainless Steel, microplate, StoreX STX500 and STX1000 Bi-Level System, 28 position / 23mm pitch			
0110	30014000 OPTION FAST GASSING CO2 STOREX	1 PC	6,183.80	6,183.80
	Discount 10.00 %			618.38- 5,565.42
	Option, Fast CO2 Gassing, StoreX (all STX and STR models)			

Mail Correspondence To: Tecan US, Inc., P.O. Box 13953, Research Triangle Park, NC 27709
Telephone: 800-352-5128 Fax: 919-361-5201
ORDERING INFO: Faxed, mailed, or e-mailed copy of the PO is required for order processing. Visa, Mastercard and American Express are accepted for orders valued below $5,000 USD only.
Fax: 919-361-3601 E-Mail: order.entry@tecan.com

TECAN.

Quotation 20030528-02/02/16/2007 continued

Quotation details

Item	Material (Old number) Description	Quantity	Price	Amount
0120	30020398 HOOD CLEANBENCH CELLERITY COMPLETE	1 PC	42,961.30	42,961.30
	Discount 10.00 %			4,296.13- 38,665.17
	Hood cleanbench type with HEPA filters. Includes worktable and all fixtures for Cellerity.			
0130	30020395 (10280545) REFRIGERATOR REVCO REL3004A MEDIA US	1 PC	10,969.50	10,969.50
	Discount 10.00 %			1,096.95- 9,872.55
	Laboratory refrigerator including mounting rack for 8 cell culture media bags and holes for bag tubings (e.g. for Cellerity) US version			
0140	30020411 CELLCOUNTER CEDEX CELLERITY	1 PC	96,325.60	96,325.60
	Discount 10.00 %			9,632.56- 86,693.04
	Innovatis CEDEX trypan blue cell counter including adaptations for Cellerity, PC and remote control SW			
0150	10760010 (760010) THERMOSTAT RECIRCULATOR F25-MC JULABO US	1 PC	6,421.30	6,421.30
	Discount 10.00 %			642.13- 5,779.17
	Recirculator, Julabo Model F25-MC, 115V/60Hz			
0160	30020895 FRAME MEDIABAG CELLERITY	1 PC	7,083.30	7,083.30
	Discount 10.00 %			708.33- 6,374.97
	Mounting rack for 8 cell culture media bags (e.g. for Cellerity). Fits into Refrigerators 30020395 (US) and 30020397 (EU).			
0170	10613031 (61-517) CARRIER 384WELL MP 3 POS.ACCESSIBLE ROMA	2 PC	721.40	1,442.80
	Discount 10.00 %			144.28- 1,298.52
	Microplate Carrier, 3-Position, Landscape			
0180	10613020 (61-449) CARRIER ADDITIVE TROUGH 3 PCE. MAX.100ML	3 PC	211.80	635.40
	Discount 10.00 %			63.54-

Mail Correspondence To: Tecan US, Inc., P.O. Box 13953, Research Triangle Park, NC 27709
Telephone: 800-352-5128 Fax: 919-361-5201
ORDERING INFO: Faxed, mailed, or e-mailed copy of the PO is required for order processing. Visa, Mastercard and American Express are accepted for orders valued below $5,000 USD only.
Fax: 919-361-3601 E-Mail: order.entry@tecan.com

TECAN.

Quotation 20030528-02/02/16/2007 continued

Quotation details

Item	Material (Old number) Description	Quantity	Price	Amount
				571.86
	Trough Carrier, 3-Position, 100 mL, disposable troughs sold separately			
0190	10613048 (613048) TROUGH DISPOSABLE 100ML PP TRA. 108 PCE.	1 PC	262.60	262.60
	Discount 10.00 %			26.26- 236.34
	Disposable Troughs, 100 mL, box of 108, natural transparent polypropylene. *Dead volume approx. 3.3 mL.*			
0200	10613056 (613056) RACK TROUGH 350ML 1 GRID GENESIS	1 PC	380.70	380.70
	Discount 10.00 %			38.07- 342.63
	Reagent Carrier, 1-Position, 350 mL			
0210	10613052 (613052) RACK TEMP.CTLD.TROUGH 4*400ML GENESIS	1 PC	5,061.20	5,061.20
	Discount 10.00 %			506.12- 4,555.08
	Reagent Carrier, 4-Position, 400 mL, Temperature Controlled through *External Recirculator, includes four Glass Reservoirs and covers.* *Recirculator and tubing sold separately*			
0220	10760010 (760010) THERMOSTAT RECIRCULATOR F25-MC JULABO US	1 PC	6,421.30	6,421.30
	Discount 10.00 %			642.13- 5,779.17
	Recirculator, Julabo Model F25-MC, 115V/60Hz			
0230	10612674 (61-494) HOTEL 9MP GENESIS RWS	1 PC	764.60	764.60
	Discount 10.00 %			76.46- 688.14
	Hotel, 9-Position, Microplate, Adjustable Shelves			
0240	30027252 CAR. 1X3 MP LAND. H-P MICRO20 STIR. CPL.	2 PC	5,800.00	11,600.00
	Discount 10.00 %			1,160.00- 10,440.00
	Carrier 2x3 MP Landscape with 3 HP Magnet Stirrer and *and 1 Controller*			

Mail Correspondence To: Tecan US, Inc., P.O. Box 13953, Research Triangle Park, NC 27709
Telephone: 800-352-5128 Fax: 919-361-5201
ORDERING INFO: Faxed, mailed, or e-mailed copy of the PO is required for order processing. Visa, Mastercard and American Express are accepted for orders valued below $5,000 USD only.
Fax: 919-361-3601 E-Mail: order.entry@tecan.com

TECAN.

Quotation 20030528-02/02/16/2007 continued

Quotation details

Item	Material (Old number) Description	Quantity	Price	Amount
0250	10280222 (280222) PORT EDGE USB-8 PORT SERIAL	1 PC	831.70	831.70
	Discount 10.00 %			83.17- 748.53
	Edgeport 8 Serial Port Expansion Device			
0260	30010455 (40-645) CABLE 9M-9F STRAIGHT THRU 25FT	6 PC	39.50	237.00
	Discount 10.00 %			23.70- 213.30
	Serial Cable, 9 Pin , RS232 male - female, straight through, 25ft			
0270	30028265 COMPUTER HP XP DC5700 SFF DUO CORE 2GB	1 PC	2,085.80	2,085.80
	Discount 10.00 %			208.58- 1,877.22
	COMPUTER HP XP DC5700 SFF DUO CORE 2GB			
0280	30028266 SPEAKER SET X-140 BLK PEAK PWR 10W	1 PC	50.48	50.48
	Discount 10.00 %			5.05- 45.43
	SPEAKER SET X-140 BLK PEAK PWR 10W			
0290	30028842 HP L1706 SMART BUY FLAT PANEL MONITOR	1 PC	839.00	839.00
	Discount 10.00 %			83.90- 755.10
0300	10280417 (280417) SWITCH 8X10/100-RJ45	1 PC	351.00	351.00
	Discount 10.00 %			35.10- 315.90
	Switch 10/100 8xRJ45			
0310	30012327 (65-038) TABLE COMPUTER	1 PC	579.20	579.20
	Discount 10.00 %			57.92- 521.28
	Computer Stand, 3 Shelves, with Casters			
0320	30001443 Factory Acceptance Testing	1 AU	15,000.00	15,000.00
	Discount 10.00 %			1,500.00-

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TECAN.

Quotation 20030528-02/02/16/2007 continued

Quotation details

Item	Material (Old number) Description	Quantity	Price	Amount
				13,500.00
	System Specific Integration			
0330	30001443 Site Acceptance Testing	1 AU	15,000.00	15,000.00
	Discount 10.00 %			1,500.00-
				13,500.00
	System Specific Integration			
0340	30001582 Installation and Software Overview	1 AU	8,700.00	8,700.00
	Discount 10.00 %			870.00-
				7,830.00
	Installation & Software Overview			

List price	794,910.98
Discount	79,491.10-
Total	715,419.88
Tax Amount	59,551.63
Total Amount	**USD 774,971.51**

Mail Correspondence To: Tecan US, Inc., P.O. Box 13953, Research Triangle Park, NC 27709
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Fax: 919-361-3601 E-Mail: order.entry@tecan.com

TECAN.

Quotation 20030528-02/02/16/2007 continued

General Information

- Delivery: Refer to the attached proposal.
- Shipping: Shipping & Handling Charges will be added to the invoice. If special delivery arrangements are necessary (truck with a lift-gate, or inside delivery and unpacking services, or advance notice before delivery), please clearly indicate these needs on the PO.
- Acceptance: Refer to the attached proposal.

- Ordering Info: Faxed, Mailed, E-mailed copy of the PO is required. Fax (919-361-3601) E-mail: Order.Entry@Tecan.com. The maximum amount allowed for a credit card transaction is $5,000.

Any images displayed are for example purposes only. Items in image may or may not be listed in this quotation. For all included items, please refer to the items listed above.

As a component supplier, Tecan shall be responsible only to the extent set forth in the warranty accompanying each item of the Equipment. Tecan cannot assume any responsibility or accept liability when your company or end user uses the Equipment as a component in a finished device with a specific application. Further your company shall be solely responsible to comply with regulatory guidelines to include maintaining records and performing required validations. The items listed in this quotation are intended for Research Use Only, not for diagnostic testing.

This quote is subject to and is governed by the General Terms of Sales of Tecan US Inc. as attached to this quote. By accepting this quote and/or by placing a purchase order for Tecan products, the customer explicitly agrees to these General Terms of Sales of Tecan US Inc. and they shall become integrated part of each sale and purchase contract for Tecan products concluded between the customer and Tecan US Inc. Any additional or deviating terms submitted by the Customer (including without limitation on a purchase order or otherwise) shall not be binding on either party unless explicitly otherwise agreed in writing.

Tecan strives to exceed our customers' expectations. Our goal is to continuously improve the quality of our products and processes in an environment that promotes compliance, integrity and teamwork.

For more information, please contact your local Sales Representative listed above.

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Telephone: 800-352-5128 Fax: 919-361-5201
ORDERING INFO: Faxed, mailed, or e-mailed copy of the PO is required for order processing. Visa, Mastercard and American Express are accepted for orders valued below $5,000 USD only.
Fax: 919-361-3601 E-Mail: order.entry@tecan.com

GENERAL TERMS OF SALES of TECAN US Inc

. (hereinafter referred to as “Tecan”)

1. TYPE OF STATEMENT
These general terms of sales (“Terms of Sale”) apply to the purchase, sale and delivery of Tecan instruments, Software (as defined in Section 4 below), components, spare parts and consumables or any combination of the foregoing, identified on the attached quote (all together hereinafter referred to as the “Products”). By signing and returning to Tecan the quote to which these General Terms of Sales are attached or by submitting a purchase order for the respective Product(s) to Tecan (whether by facsimile, mail or e-mail), the customer agrees to comply with and to be bound by these Terms of Sale. Deviations from these Terms of Sale can only be agreed on in writing by Tecan. Any additional or deviating terms submitted by the customer (including without limitation on a purchase order or otherwise) shall not be binding on Tecan unless expressly agreed to in writing by Tecan.

2. QUOTE AND ACCEPTANCE
Tecan’s quote for the delivery of Products is valid for 90 days from the date of receipt of the quote by the customer. None of the offer or project documents provided by Tecan in connection with the quote shall be passed on to third parties nor copied unless Tecan explicitly agrees in writing. Upon Tecan’s request, the customer shall return all offer and project documents in connection with unaccepted quotes. Once having accepted a quote or once having submitted a purchase order, the customer shall only have the right to cancel the purchase against payment of a sum equal to [20] percent of the purchase price. Should such cancellation be notified by the customer to Tecan [15] days prior to the agreed delivery date or later, the customer shall pay a sum equal to [70] percent of the purchase price.

3. PRICES AND DELIVERY
Tecan’s prices in the quotes do not include VAT, local sales, use or other taxes, shipping costs, customs duty and insurance costs, which taxes, costs and duties are the responsibility of customer. Tecan arranges Product shipment and transportation insurance at its own discretion but at the costs of the customer. All Products are delivered to customer Ex-Works (Incoterms 2000) Tecan’s factory. Any delivery dates indicated in the quotes are approximate and not binding on Tecan.

4. SOFTWARE LICENSE AND RESTRICTIONS
Subject to customer’s payment of the price identified on the quote, Tecan hereby grants to customer a non-exclusive, non-transferable, non-sublicensable license to use the Tecan software set forth in the quote (the “Software“) and all related documentation provided by Tecan (the "Documentation," and referred to collectively with the Software as the "Software Products") solely for the purpose as identified in software documentation.

Customer shall not, and shall not allow any third party to: (a) reverse assemble, decompile, disassemble, or otherwise reverse engineer or attempt to reconstruct or discover any source code, or underlying ideas or algorithms of the Software; (b) provide, lease, lend, use for timesharing or service bureau purposes or otherwise use or allow others to use the Software Products for the benefit of any third party; or (c) copy, modify, incorporate into or with other software or create a derivative work of any part of the Software Products. Notwithstanding anything to the contrary in the foregoing, customer may make one (1) copy of the Software Products for back-up purposes only, provided that customer reproduces all copyright notices and other proprietary legends on such copy.

The Software and its underlying source code, including any updates, modifications and enhancements thereto, and any and all Documentation delivered by Tecan to customer shall at all times remain the sole and exclusive property of Tecan. Customer shall not have any interest in the Software, Documentation, or any part thereof, except for the limited license rights granted to customer hereunder.

Customer understands and agrees that Tecan considers the Software Products to be the proprietary and confidential information of Tecan. Customer agrees to maintain the Software Products in confidence, and except for the right of Customer to make a copy of the Software Products, Customer agrees not to disclose, duplicate or otherwise reproduce, directly or indirectly, the Software Products in whole or in part.

5. PASSING OF RISK
The risk of Product loss or destruction passes to the customer upon departure of the shipment from Tecan’s factory and/or other Tecan facility where such Product is stored. In case of delay of shipment due to circumstances for which the customer is accountable, the risk passes to the customer upon readiness of the Product for shipment.

6. PAYMENTS
Payments are due thirty (30) days after the date of the invoice or, in case an Installation Qualification or an Operational Qualification is carried out and/or supported Tecan, thirty (30) days after Acceptance (as defined in Section 8 below). Upon expiration of this thirty day payment period, any unpaid amounts shall accrue interest in an amount equal to eight percent annually. Customer has no right to offsetting unless the customer’s claim was explicitly approved in writing by Tecan. Customer has no right to assign any claims to a third party without the prior written consent of Tecan.

7. RETENTION OF TITLE
Tecan keeps full title in all Products delivered to the customer as long as the customer has not fulfilled all of its payment obligations in connection with the delivery of the respective Products. Until customer has paid in full all amounts owed by customer to Tecan with respect to a Product, customer shall not sell, pledge, mortgage, grant security interest or otherwise dispose of any such Product. The customer authorizes Tecan to make registrations or filings with the competent authorities that might be necessary to effect such retention of title. As security for the prompt and complete payment, performance and observance of all of customer’s payment and other obligations hereunder (collectively, the “Secured Obligations”), customer hereby pledges, hypothecates, delivers, transfers and assigns to Tecan, and grants to Tecan, a security interest in and to all of customer’s right, title and interest in and to the Products, including the Software and Documentation, and all Proceeds (as defined in the North Carolina G.S. § 25-9-102), tort claims, insurance claims and other rights to payments not otherwise included in the foregoing and products of the foregoing and all accessions to, substitutions and replacements for, and rents and profits of, each of the foregoing.

8. VALIDATIONS
Depending on the Products delivered and as agreed between the parties, Tecan may perform an Installation Qualification as well as support an Operational Qualification at the premises of the customer. Installation Qualification is understood as a qualification performed at the time of installation which documents that the installation complies with the manufacturer’s specifications. Operational Qualification is understood as a qualification performed subsequent to installation which documents that the supplied equipment performs consistently within limits and tolerances as jointly specified by Tecan and the customer. Customer shall sign a

qualification protocol to confirm the performance of the Installation Qualification and Operational Qualification, such qualification protocol is deemed to constitute the acceptance of the Product ("Acceptance"). It is the customer's responsibility to carry out a Performance Qualification, which is understood as the qualification establishing confidence through appropriate testing and/or calibration procedures that the final result of a specified process or assay meets all release requirements with regard to proper functionality, gauging, and safety. Tecan shall only assist in such Performance Qualification if Tecan agrees to do so pursuant to terms and conditions agreed on between the parties in a separate agreement, and, unless otherwise stipulated in such an agreement, Tecan does not assume any liability for any performance parameters subject to testing in a Performance Qualification.

9. TRACEABILITY

If the customer intends to resell, lease or otherwise dispose of or relocate any Products (other than Software Products which are non-transferable in accordance with Section 4) that are subject to medical device or similar regulations in any jurisdiction to any third party or any other business unit, he/she shall inform Tecan in writing about such intention at least four weeks prior to the actual execution of such transaction or action by indicating the serial number of the Products as well as the identity, location and scope of business of the respective receiver. This obligation shall not affect the customers' general right to dispose of the Products (other than Software Products which are non-transferable in accordance with Section 4) within the boundaries of applicable law. The customer shall at all time keep appropriate records ensuring traceability of each instruments purchased from Tecan and has to allow Tecan and any competent governmental authority access to such records upon request.

10. DISCLAIMER OF WARRANTIES AND LIABILITY & LIMITATION OF REMEDIES

TECAN WARRANTS FOR THE WARRANTY PERIOD DESCRIBED IN THE NEXT PARAGRAPH THAT THE PRODUCTS MEET THE WRITTEN SPECIFICATIONS THAT MIGHT HAVE BEEN AGREED TO IN WRITING BETWEEN THE PARTIES, BUT MAKE NO OTHER WARRANTIES, EXPRESS OR IMPLIED. IN PARTICULAR, TECAN MAKES NO IMPLIED WARRANTY OF MERCHANTABILITY OR ANY OTHER IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, QUIET ENJOYMENT, DATA ACCURACY AND SYSTEM INTEGRATION. TECAN SHALL NOT BE LIABLE IF THE PRODUCTS OR PARTS OF THE PRODUCTS ARE USED TOGETHER WITH INSTRUMENTS OR SOFTWARE OTHER THAN THOSE DELIVERED BY TECAN. TECAN DOES NOT GUARANTEE THAT USE OF THE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE

THE WARRANTY PERIOD IS 12 (TWELVE) MONTHS BEGINNING WITH THE RECEIPT OF THE PRODUCTS BY THE CUSTOMER OR IN CASE AN INSTALLATION QUALIFICATION OR OPERATIONAL QUALIFICATION IS CARRIED OUT AND/OR SUPPORTED BY TECAN, 12 (TWELVE) MONTHS BEGINNING WITH THE ACCEPTANCE (AS DEFINED IN SECTION 8 ABOVE). THE CUSTOMER SHALL INSPECT THE PRODUCTS IMMEDIATELY AFTER RECEIPT FOR ALLEGED NON-CONFORMANCE WITH AGREED SPECIFICATIONS (HEREINAFTER, SUCH NON-CONFORMANCE REFERRED TO AS A "DEFECT") AND SHALL NOTIFY TECAN IN WRITING OF ANY NON-LATENT DEFECTS WITHIN 10 (TEN) DAYS AFTER RECEIPT OF THE PRODUCTS. OTHERWISE, THE PRODUCTS ARE DEEMED TO BE ACCEPTED WITHOUT RESERVATION AND ANY CLAIMS OF THE CUSTOMER AGAINST TECAN ARE WAIVED, INCLUDING ANY CLAIM OF BREACH OF WARRANTY. THE CUSTOMER MUST NOTIFY TECAN IN WRITING OF ANY ALLEGED LATENT DEFECTS IMMEDIATELY AFTER THEIR DISCOVERY, BUT IN NO EVENT LATER THAN 12 (TWELVE) MONTHS AFTER RECEIPT OR ACCEPTANCE OF THE PRODUCTS.

TECAN HAS THE CHOICE, AT ITS SOLE DISCRETION, TO EITHER REPAIR OR REPLACE ANY PRODUCT THAT CONTAINS AN ALLEGED DEFECT. IF SUCH REPAIR FAILS OR THE REPLACEMENT IS DEFECTIVE TOO, THE CUSTOMER HAS THE RIGHT TO EITHER CLAIM FOR A REASONABLE REDUCTION OF THE PURCHASE PRICE OR TO CANCEL THE PURCHASE CONTRACT AND TO RETURN THE PRODUCT(S) IN QUESTION. IN THE LATTER CASE, TECAN HAS NO OBLIGATION TO PAY ANY DAMAGES IN CONNECTION WITH THE DEFECTS, OTHER THAN THE PURCHASE PRICE. HOWEVER, IN CASE OF DEFECTS THAT ARE NOT MATERIAL, THE CUSTOMER DOES NOT HAVE THE RIGHT TO THE CANCELLATION OF THE PURCHASE CONTRACT. CLAIMS THAT ARE DUE TO ORDINARY ABRASION, IMPROPER USE, MODIFICATIONS OF THE PRODUCTS OR ALIKE ARE EXCLUDED. CUSTOMER ACKNOWLEDGES AND AGREES THAT ANY AND ALL WARRANTIES AND REPRESENTATIONS HEREUNDER WITH RESPECT TO A PRODUCT SHALL BE NULL AND VOID IN THEIR ENTIRETY IN THE EVENT ANY SUCH PRODUCT IS SERVICED, MAINTAINED, REPAIRED, ADJUSTED OR MODIFIED IN ANY MANNER OTHER THAN AS SET FORTH IN THE APPLICABLE PRODUCT MANUAL (AS DEFINED IN SECTION 13 BELOW). THIRD PARTY COMPUTERS THAT MIGHT BE PART OF A DELIVERY ARE EXCLUDED FROM ANY WARRANTY.

11. LIMITATION OF LIABILITY

IN ALL CIRCUMSTANCES THE EXTENT OF TECAN'S LIABILITY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT(S) IN QUESTION. IN NO EVENT SHALL TECAN BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS.

12. INTENDED USE AND CUSTOMER'S LIABILITY

To the extent required by applicable medical devices law or similar law governing the use of the Products, the Products shall only be used consistent with the purpose, specifications, and fields of application as defined in the quote and/or product description issued by Tecan ("Intended Use"), and shall not be modified or combined with other items in a way not compliant with their Intended Use. The Intended Use also includes a designation of a Product as a single-use device, or a research-use-only product, or general laboratory equipment. Tecan shall not be liable for and does not warrant legal or regulatory compliance for Products operated and/or modified and/or combined with other items beyond their Intended Use. In any event, Tecan's Products are only components and Tecan cannot assume any responsibility or accept liability when the customer or end user uses the Product as a component of an integrated system for a specific application. It is the customer's or user's sole responsible to comply with regulatory guidelines to include maintaining records and performing required validations.

If the customer operates and/or modifies the Products and/or combines them with other items beyond their Intended Use, the customer shall indemnify and hold Tecan harmless from any third parties' claims, including actions taken by public bodies, to the extent such claims or actions arise in connection with customer's operations, modifications, or combinations of the Products beyond their Intended Use. This also applies in case of a resale of Products modified or combined with other items beyond their Intended Use by the customer to third parties.

13. REGULATORY COMPLIANCE OF THE CUSTOMER AND NOTIFICATION OF COMPLAINTS

The customer undertakes to only use, service and maintain the Products in full compliance with all applicable laws and regulatory requirements and any instruction given in Tecan's manuals accompanying the Products (the "Product Manuals'). The customer shall be responsible for complying with all applicable laws and regulations including, but not limited to, any applicable reporting and recordkeeping requirements. The customer shall notify Tecan within a reasonable period of time of any complaints involving the Products and shall cooperate with Tecan in the investigation of complaints and the execution of field actions. The customer shall ensure maintenance of the Products by qualified personnel only. Upon request of Tecan, the customer shall provide Tecan with all relevant service documentation. If the customer fails to ensure legal or regulatory compliance with respect to the use, service and maintenance of the Products, or does not ensure that Products are maintained by qualified personnel, the customer shall indemnify and hold Tecan harmless from damages, losses, claims and expenses to the extent such damages, losses, claims and expenses arise in connection with the customer's failure to ensure legal or regulatory compliance or the customer's failure to ensure that Products are maintained by qualified personnel.

14. PLACE OF JURISDICTION AND APPLICABLE LAW

Any dispute or any claims arising out of this Agreement shall be exclusively brought before and decided by the U.S. District Court for the Eastern District of North Carolina, or such other jurisdiction as the parties may mutually agree upon. This Agreement shall be governed by and construed in accordance with the laws of the State of North Carolina (excluding the choice of law rules thereof). The Vienna Convention on Contracts for the International Sales of Goods is excluded.

15. MISCELLANEOUS

Should any provision of the these Terms of Sales or any other contractual arrangement between the parties referring to these Terms of Sales be or become invalid, the other provisions shall not be affected and the parties shall use their reasonable endeavours to reach agreement to have the invalid provision replaced by a valid arrangement which comes as close as possible to the purpose of the invalid provision and to the intention of the parties related to such provision. These General Terms of Sale and the quote to which they are attached constitute the entire agreement between and understanding of the parties, and supersede all prior agreements or understandings, whether written or oral, with respect to this subject matter. Except as expressly stated herein, no terms, conditions, or warranties, other than those written in these Terms of Sale, and no amendments or modifications of these Terms of Sale will be binding on the parties unless in writing and signed by Tecan and customer.

Customer's acceptance:

_____

Place and date)

_____

(Customer's name)

_____

(Signature)

CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE

Appendix A

Application: CL1-00512-1

Title: CPMC Shared Research Laboratory

Public Abstract:

Human Embryonic Stem (hES) cells have the capacity to become all of the cell types of the human body. However, clinical applications of these cells require an understanding of how to isolate the downstream embryonic progenitors (EPs) of specific tissues. The CPMCRI Shared Research Laboratory (SRL) proposes to utilize a new two-step single cell technique to rapidly isolate a large number of potentially useful EPs, expand the number of those cells, test them for quality, and then share those purified cell types with other medical researchers throughout California. Specifically, the SRL will:

1. Isolate uniform populations of novel EPs that can become different tissues directly from discarded human IVF embryos. Using the two-step technology, ~ 1000 novel cell lines will be isolated and analyzed for gene expression and quality, banking, and distribution.

2. Isolate uniform populations of novel EPs that can become different tissues from hES cells derived from discarded IVF embryos carrying disease genes. In collaboration with Pacific Fertility Center, embryos carrying disease genes will be used to generate hES cells or caused to change into cells that can become different tissues using the two-step technology. Novel disease-bearing EP lines will be provided to California researchers in parallel to the normal lines for drug discovery and inherited disease research.

To this end a 1500 sq/ft laboratory at CPMCRI will be renovated and dedicated as the SRL for stem cell research not sanctioned by the Federal Government. The facility will contain 3 cell culture hoods, 6 incubators, a cryopreservation system, microscopes, centrifuges, a robotics cell culture platform, and various equipment items necessary for cell culture.

The Principal Investigator will serve as the Director of the facility. A Facilities Manager will be responsible for the day-to-day supervision of the facility. Core personnel will be responsible for the culture, cryopreservation, and distribution of the cells to researchers at CPMCRI, neighboring institutions, and institutions throughout California. CPMCRI researchers have projects that include neurological disease (ALS and nerve cell regeneration), cancer (breast cancer stem cells and cell migration), cardiovascular disease (myocyte regeneration), and inherited disease-related organ repair (cystic fibrosis and sickle cell disease).

Statement of Benefit to California:

The proposed research at the CPMCRI SRL benefits the people of California by providing medical researchers in the state novel human cell lines useful in both basic scientific study and potentially for use in the treatment of numerous degenerative diseases. The CPMCRI SRL will provide its collaborators with human embryo-derived cells that are more differentiated than human embryonic stem cells, are closer in their characteristics to the actual tissue that they are intended to repair, and therefore are closer to therapeutic application. The role of the SRL at CPMCRI will be to generate, characterize, test, and distribute these cell lines derived from normal human embryos through a process of direct differentiation wherein human embryonic stem cell lines are not utilized. In addition, the CPMCRI SRL will generate EPs from embryos carrying inherited disease gene alleles. The novel method of deriving these cells and the unique genetic properties of those generated with abnormal genetic backgrounds, offer a unique service to California researchers, useful in understanding the biology of disease and early human development, cell based drug discovery, and for the cell-based treatment of degenerative disease.